



Rebuild Iowa Task Force Agriculture and Environment Meeting Notes

Governor Chet Culver
Lt. Governor Patty Judge, RIO Executive Director

October 9, 2008 – 9:30 am – 4:00 pm

Iowa Department for the Blind

Assembly Room, 4th and Watson Powell Drive, Des Moines, IA 50309

Task Force:

Brent Halling, Chair, Farmer, Perry
Mark Ackelson, Iowa Natural Heritage Foundation, Des Moines
Senator Jerry Behn, Iowa General Assembly, Boone
Matt Helmers (for Wendy Wintersteen), Iowa State University, Ames
Warren Kemper, Iowa Corn Growers Association, Wapello
Carlton Kjos, Iowa Farm Bureau, Decorah
Regina Lloyd, Iowa Farmers Union, Linden
Denise O'Brien, Iowa Environmental Council, Atlantic
Bill Northey, Iowa Department of Agriculture and Land Stewardship, Spirit Lake
Mark Rosenbury, Agribusiness Association of Iowa, Des Moines
Deb Ryun, Conservation Districts of Iowa, Chariton
Drue Sander, Iowa Institute for Cooperatives, Ames
Senator Frank Wood, Iowa General Assembly, Eldridge

Resource Group:

Donna Buell, Buell Law Office, Spirit Lake
Paul Govoni, Hydro-Klean, Des Moines
Andrew Hug, Environment Iowa, Des Moines
Christopher Jones, Des Moines Water Works, Des Moines
David McMurray, Upper Mississippi, Illinois, and Missouri Rivers Association, Burlington
Francis Thicke, Fairfield
John Torbert, Iowa Drainage District Association, West Des Moines

Presenters:

Lyle Asell, Rebuild Iowa Office and Iowa Department of Natural Resources, Des Moines
Jim Gillespie, Iowa Department of Agriculture and Land Stewardship, Des Moines
Matt Helmers, Iowa State University, Ames
David McMurray, Upper Mississippi, Illinois, and Missouri Rivers Association, Burlington
Alex Moon, Iowa Department of Natural Resources
Mary Skopec, Iowa Department of Natural Resources, Iowa City
Vicki Stoller, Two Rivers Levee and Drainage Association, Burlington

Staff:

Lyle Asell, Rebuild Iowa Office and Iowa Department of Natural Resources, Des Moines

Susan Dixon, Rebuild Iowa Office, Des Moines
Harold Hommes, Rebuild Iowa Office and Iowa Department of Agriculture and Land
Stewardship, Des Moines
Barb Lynch, Iowa Department of Natural Resources, Des Moines
Bill Riley, Rebuild Iowa Office, Des Moines
Amelia Colwell, SPPG, Des Moines
Paritosh Kasotia, SPPG, Des Moines
Tom Slater, SPPG, Des Moines

Welcome and Opening Comments

Chairman Brent Halling welcomed the group, reviewed the purpose of the meeting, and said that the group will outline long-term recommendations based on information heard from the updates. The aim will be to create a combined report from all Task Forces to the Commission, so they can move it forward to the Governor and the Legislature. Halling said that he hoped that the report will help in preparation for future disasters and said he envisioned the work moving forward through legislative committees and existing work groups. Halling asked Tom Slater to outline the process for reporting.

Slater said that the 120-day process is part of the Governor's Executive Order, and the Commission has a responsibility to submit the report by November 17. The Task Forces will not be submitting individual reports, but rather, there will be one report that will compile discussions from all Task Forces. Slater said that part of the day would be devoted to going over the 45-Day Report recommendations and subsequent recommendations. The 45-Day Report recommendations were developed by the Rebuild Iowa Advisory Commission with information from the nine Task Force reports that focused on immediate responses to the flood.

Slater asked attendees to introduce themselves, thanked everyone for coming together to work on the issue, and reviewed the purpose of the Task Force meeting. The Rebuild Iowa Advisory Commission met on October 1 and discussed how to move development of its next report forward. The 120-day report will take into consideration the long-term vision for recovery. Input from each Task Force will be taken together to create a report for the Commission. The Commission will receive the draft report on November 13 for review and final acceptance. The report will be delivered to the Governor on November 17.

Slater asked people to provide updates on what has been happening in their communities since the last Task Force meeting. Secretary Northey talked about concerns regarding getting assistance on the ground. Farmers are facing many challenges as a result of the floods. They are not sure if they can farm around the levee areas, and they are concerned about whether help will be coming or not.

A Task Force member mentioned that farming families are facing tremendous stress, which will have an overall impact on Iowa, especially with the economic situation. Slater said that the disasters will create a workforce that will be working longer hours. One

Task Force member said that a number of non-profit organizations formed the Iowa Disaster Relief Fund, which is giving out grants of \$500 dollars, so that people can pay bills. With the coming of winter, people are concerned about their situations.

Another Task Force member mentioned that the situation is worse due to the stock market. There was frustration expressed regarding waiting for the federal government to make decisions, and there are lots of questions that need to be answered.

A Task Force member asked whether some crops are not eligible for federal crop insurance. Secretary Northey said that Iowa is a state that buys more crop insurance, and generally, most of the areas are covered by crop insurance. Problems occurred in the replanting season especially regarding the Preventive Planning Process that does not pay as much as full coverage would pay and only allows a farmer to farm again; it does not necessarily bring the farmer back up to capacity again. Slater said that the Commission and Economic and Workforce Development Task Force discussed the issue of flood insurance and said that it will be critical to move the issue of flood insurance forward.

A Task Force member raised the issue of the severity of soil erosion in many parts of the state. Slater said that he expects a continued constituency group to work on raising awareness and increase funding about this issue, and recognized the work of the Congressional delegation from Iowa to highlight the issue.

One Task Force member said that there are a good number of people in the floodplain who are interested in buy-out, as people are tired of being flooded out each year, and said that it will do a lot of good in the long run.

Another Task Force member talked about damages to the infrastructure that is being repaired. In general, the agri-business infrastructure is in pretty good shape, and there is more work needed to be done for the transportation infrastructure. Slater asked about the current capacity for grain storage, as brought up in the first meeting, and a Task Force member said he did not see it as a concern.

Another Task Force member talked about members of his organization in the region of Southeast Iowa struggling with stress. Slater asked if his organization gives any technical assistance, and he answered that they have not done much in providing technical assistance, but have given help generally.

A Task Force member talked about conservation land that was severely damaged and highlighted issues of erosion, the changing landscape, and the interaction in Southeast Iowa, where the drainage districts are within levee districts, which complicates issues because it creates a need to handle two jurisdictions. He highlighted the increasing interest in conservation programs since the 1993 flood.

A Resource Group member said that the Task Force meetings should be keeping the long-term needs in mind. Another Resource Group member said that there is a need to

think about pre-disaster measures that need to be in place to be prepared for the next disaster. There is a lot of frustration among people due to the slowness of response by government agencies at state, local, and federal levels, and Task Force members suggested taking a holistic approach at addressing recovery.

Halling said that the overriding issue in the long term will be land use, while the short-term goal was to help people put their lives back together. Halling noted that land use is a complicated issue with many stakeholders needed at the table to discuss it and said that he would like to have further discussion with the Commission regarding this topic area.

Slater said that the goal will be to move forward with the necessary policies and focus to make sure that when this happens again, it will not be as severe. Slater reviewed the 45-Day recommendations. He highlighted concerns about housing, expediting funding, allocation of federal funding and lack of awareness on how much Iowa will receive of the \$23 billion appropriation, the need to invest in the local emergency management system, the need for regional planning, and the need for communication and outreach initiatives.

Slater asked the group members to think about the subsequent recommendations in terms of next steps and how the state will address issues in future disasters. There was discussion about lessons learned about temporary housing, the need for technical assistance for small businesses, and livable wages.

Slater introduced Bill Riley, from the Rebuild Iowa Office (RIO), who updated the Task Force on the Office's activities. He said that the RIO has moved to a different office on the second floor of the Wallace Building. RIO also has a budget and has begun to hire full time employees, although RIO is still relying on state agencies for assistance, which will continue.

Riley gave a summary update on assistance. There are 85 counties that are eligible for assistance from federal agencies, and 39,383 people have registered with FEMA for assistance. There has been \$800 million in assistance provided, that includes \$130 million in the housing program, \$237 million in approved SBA loans to businesses and households, and \$3.8 million in disaster unemployment.

Riley directed the group to information posted on the RIO website. The Task Force suggested that this information should be sent out to the Task Force and Resource Group members. Riley told the group about a subscription system to receive updates from the RIO, and he said that all members will receive an email that will ask members to subscribe to receive future updates.

Riley emphasized that the goal of the RIO is to communicate as much as possible. One Task Force member asked what the \$23 billion appropriation means, and Riley said that he was not sure of the Iowa share, since the \$23 billion figure encompasses multiple states.

One Task Force member asked about the total estimate of damage. Riley said that most used figure is somewhere around \$10 billion, and said that the \$362 million in infrastructure damages will reach \$1 billion fairly soon. This does not include damage to housing, economy and other areas. One Task Force member asked about the major accomplishments and challenges. Riley said that the challenges are figuring out ways to address long-term issues and how to best prepare for the next disaster. He said that in terms of the response, state and federal agencies have responded well, but it takes time to recover from a disaster of enormous proportion. Halling said that Governor Culver has been very active in addressing the disaster and pushing as hard as he can to get recovery funds.

Updates

Soil and Water Quality

Halling introduced Dr. Mary Skopec, from the Department of Natural Resources (DNR), who gave an update on soil and water quality. Skopec said that bacteria levels are back within acceptable levels in the Cedar River in Cedar Rapids and have dropped significantly in the last 30 days. Skopec conveyed the need for public health entities and DNR to work together to ensure messages are being conveyed to the public. She said that the information flow is currently person to person, and there may be more efficient ways to communicate information. Halling asked if that could be a function of county emergency management coordinators, and Skopec said she thought that was an excellent example of working together, and there is a balance to be struck between IDPH and DNR to ensure all things are being covered. She recommended examining methods of information transfer, especially with members of the public leaving; having prepared guidelines for clean-up; examining human health and environmental health; and improving monitoring by completing faster results, targeting areas of concern, and differentiating flood and post-flood concerns. Additional sampling has been cut because the Department does not have the resources to do any more during the year. There is a hydrologic change, where they are seeing higher highs and lower lows, and Skopec said that floodplain mapping needs to consider hydrology changes in Iowa, instead of only using former floods to inform the maps.

There was a question about why the nitrogen levels have continued to be high throughout the summer, and Skopec said she was not sure, and there are a lot of unknowns concerning high levels of nutrients. There was a question about how much samples cost, and Skopec said they are spending \$1,500 per sample that is tested at The University of Iowa Hygienic Laboratory. Generally, they have included additional chemicals in the tests that are not usually tested, such as gasoline, and those additions contribute to increased costs. There was a question about whether there was temporary help with sampling, and Skopec said she thought it was appropriate to spend the money on the monitoring, but they did not receive additional help or funding. She emphasized the need for DNR to collaborate with public health entities. Skopec highlighted lessons learned, such as in 1993, there was no sampling done, and this year, some sampling sites were not accessible. This year, there was also a lesson learned to sample areas where water had receded, such as playgrounds.

A Task Force member said there is currently no federal match for testing, and he saw a need to address the issue at the federal level as well. Skopec said that there is hope that FEMA will reimburse them for sampling and monitoring. A Task Force member agreed with the need for DNR and local public health boards to communicate with one another, and Skopec agreed that she hoped to work on that in the future.

Cover Crop Initiative

Lyle Asell of DNR gave an update on the cover crop initiative and discussed the issue of flood syndrome, which can reduce corn yield by 15%, and in Iowa, one million acres went unplanted. Asell said that the conclusion of the state and the Task Force was that initiating a cover crop program would be helpful. There is not currently a program in place, but education about the program through print and radio has been implemented. He said that cover crops are a way to keep water on the land, which has been a concern of the Task Force. A Task Force member said that another benefit of cover crops is carbon capture. Asell said that a variety of organizations have undertaken efforts to encourage cover crops, and there is an opportunity to move efforts forward. A Task Force member said that tillage radishes are a cover crop, but there are not places to buy them, and she saw a need to educate people about where to buy them. Asell said that they were working under a tight timeframe and hope to move forward in the coming months.

Floodplain Mapping

Asell addressed the progress on floodplain maps and said that there is a contract in place to complete Light Detection and Ranging (LiDAR). Half of the state has been flown, and a third of the state has data delivered. There will be a compressed schedule to complete the mapping, and emphasis will be placed on southeast Iowa. Asell reported that 8% of Iowa is in the floodplain. LiDAR will involve getting the data to complete floodplain maps, and involves other benefits. Thirty-one counties currently do not have maps available, and map quality varies across the state. Current maps are based on 100-year flood events, and Asell discussed the need to expand the discussion beyond 100- and 500-year floods because of the magnitude and frequency of recent disasters. Floodplain maps could be used to identify areas that are likely to flood, make real-time predictions based on modeling, and identify critical infrastructure to address the flood issues and make better management decisions. Asell said that people will never control floods completely, but can reduce damages.

DNR has looked at many options for mapping, and areas in the state that are of highest importance will be given priority, but it may take ten years to complete the whole state. Iowa attempted to apply for funding for LiDAR from federal resources but did not receive it. A Task Force member asked how to read the 8% figure for amount of Iowa that is located in a floodplain, and Asell said that figure is based on soil information and rivers. A Task Force member asked him to address how to use LiDAR for floodplain mapping and make it available to various constituencies. Asell said the aim is to make it available for the public, and there are many potential users of the maps. There is a contract with the University of Northern Iowa (UNI) to complete the maps, with Iowa State University

(ISU) as a backup. The data is massive, with over two-million shots and data points for each square mile. A Resource Group member asked how LiDAR will reduce flood damages, and Asell said that it will help to make better decisions. Asell said generally speaking, Iowa's highest damages come to agriculture, and the goal will be to provide better information about high risk areas. Asell said that there has been a 10% increase in precipitation in the last 30 years, and weather events have also increased and will need to be taken into account with a flexible system. Skopec added that they hope to involve gauges in the real-time prediction for early responses. Asell said that maps were used in the city of Johnston this year to plan security for the national Governor's Conference, in addition to where and how high to put sandbags.

A Task Force member said that farmers are using GPS and asked if there was some way to coordinate efforts, and Asell said that it would be difficult to coordinate different systems. Asell said that John Deere has expressed interest in getting the LiDAR data to integrate into their data. Skopec said that LiDAR is accurate to the centimeter. Asell said that individual communities can buy up additional areas of accuracy. A Task Force member asked how areas are being prioritized, and Asell said that where they have data and look at the quality of existing maps helps with prioritization, and they will be first focusing on river systems with population centers. Halling asked how much is done in metropolitan areas now, and Asell said that northeast Iowa, south-central Iowa, and northwest Iowa have been completed. Half of the state is currently done, and six aircraft have been brought in to produce the data. He said that the data will be good for 30- 50 years, and the projection is that the whole state will have been flown next year.

Soil and Water Conservation

Jim Gillespie of Iowa Department of Agriculture and Land Stewardship (IDALS) gave an update on soil and water conservation. He showed photo examples of the impacts on crop land and damages to water conservation practices. There was a survey of all soil and water conservation districts, which included an estimated \$40 million damage to conservation practices, and more accurate figures will be available after the harvest season. In the last 71 days, the Environmental Quality Incentives Program (EQIP) has received \$4 million through the United States Department of Agriculture (USDA) Farm Service Agency's Emergency Cost Share Program. Sixty-eight counties have applied for \$34 million for repairs and other needs and have received \$10 million. The Natural Resources Conservation Service (NRCS) Emergency Watershed Program has requested \$40 million for repair, \$35.5 million for traditional repair, and \$270 million for floodplain easements. Funding levels are unknown, but there are 648 applications for floodplain easements, which include over 60,000 acres, estimated at \$270 million. NRCS has allowed construction incentives to extend the construction season. There was a question about the capacity of contractors, and Gillespie said requests for federal funding are slow to come, and the reality is that funding is needed now during the construction season. There will be a letter written to the head of NRCS to request backfill of state funds that may be expended. Seventy-eight districts requested \$13.5 million through the state cost share program, but there is only \$3 million to give out. There is a huge demand for funding, with \$31 million in EQIP on top of the regular state cost share of \$7 million.

The Department is looking at flood prevention, maintenance and restoration, technical assistance for urban conservation. A request for funding of these programs was sent to the Governor on October 1.

A Task Force member asked what a floodplain easement is, and Gillespie said that it is a certain amount of acres that go under the operation of NRCS and is managed as a natural area. Landowners are paid a value determined by a Corn Suitability Rating (CSR), and it is a permanent easement. Gillespie said that they are looking at haying and grazing, and they have minimized restoration practices, and a Task Force member expressed his concern about this issue. Asell said that restoration practices can sometimes exceed the cost of the land.

Landfills

Alex Moon of DNR gave an update on landfills and said that landfill organizations are pleased to hear they are being addressed within the Task Force. He said that there are three stages that will provide a lot of waste: cleanup, the demolition of homes, and the rebuilding process. Stage 1 has been completed in most areas with the exception of some areas of southeast Iowa. Landfills are built in cells, and it is difficult to plan for building when the timing of homes being demolished is unknown. Counties are talking about closing landfills because of the costs associated with landfill maintenance. Three engineers focus on municipal landfills, and DNR has to review plans for landfills. There is a backlog of projects, and DNR will be prioritizing areas affected by the disasters. Two landfills have opened old, unlined areas in Cedar Rapids and Des Moines County, and there are time limits associated with the unlined areas.

A Task Force member asked if burning debris would help, and Moon said that during the floods, they avoided burning because of concerns about emissions. Barb Lynch of DNR said that there are other issues, such as when pollutants are released into the air in areas that already face high levels of pollution. There are asbestos issues associated with older houses, and asbestos is a carcinogen. A Task Force member asked if areas of the state that were not impacted could have capacity to hold waste, and Moon said that state regulations controlling where waste goes have been relaxed to allow for waste removal. Moon said that reimbursement from FEMA is important, and defining the process for them will be important. A Task Force member asked if some materials can be salvaged from homes, and Moon said that volunteers put education materials on doors instructing home owners to separate metal from other materials for recycling. Moon added that where they can, they are trying to salvage materials. Halling said that it will be important to address this in the future.

The group broke for lunch.

Comprehensive Plan and Oakville Area Levee

David McMurray of the Upper Mississippi, Illinois, and Missouri Rivers Association (UMIMRA) and Vicki Stoller gave an update on the comprehensive plan and the Oakville Area Levee and showed pictures of the damages caused by flooding. Stoller is

the Administrator for the Two Rivers Levee and Drainage Association, which has 37 miles of main-stem levee in Levee District 11. There are also drainage districts to assist with drainage. In June, the levee was topped and flooded tens of thousands of acres. In some parts of the district, the water was 20- 22 feet deep. The main-stem levee is being repaired, and some repairs will be done in October. There was a temporary levee created by the Army Corps of Engineers. Two pumping stations were lost, and one will begin pumping again next week. The area has received nine inches of rain in September, and flash floods impacted areas that had already been repaired. Levee 11 was within the PLA 499 Army Corps program and has met yearly inspections. There is a new requirement for the program to meet a benefit-cost ratio of 1. Repairs are estimated to be at a ratio of 0.4 and will result in the Corps not repairing the levee, a decision that is being contested. The Iowa River cut a new path across Louisa County because of the northern break, and the new path did not follow the river bed. Stoller said the levee system is good, and there are continual needs to improve the system.

McMurray said that rivers have unique characteristics in certain regions and a cookie cutter approach cannot be undertaken to all areas. He said that his organization deals with the Missouri, Mississippi, and Illinois Rivers, and their aim is to build what is needed for the future. He said that little has changed since 1993 with regard to the ability for people to defend themselves against flooding. The 1993 flood produced \$15 billion in damages, and early estimates from 2008 are \$18 billion. McMurray showed a photograph of Burlington, Iowa, where many buildings, businesses, and transportation routes were under water. Highway 34 was closed for six weeks, and Burlington Northern expended \$100 million to repair the railroad. McMurray showed additional photographs of flooded areas. There has been impact to agribusinesses in the Burlington area, and he said that the Upper Mississippi Valley will continue to endure stunning hardship until something is done. McMurray reported that every \$1 spent on comprehensive flood control at the 500 year level would generate nearly \$5 in increased farm income, damages avoided, and enhanced economic development.

There was a Flow Frequency Study done to determine the water flows that would be expected based on a variety of conditions. The Tennessee Valley Authority (TVA) looked at the region, and found that there would be a positive cost benefit. The Corps of Engineers has just completed the Upper Mississippi River Comprehensive Plan and now needs Congressional approval and a corresponding appropriation so that it can be implemented. There are conflicting rules and regulations between Illinois, Iowa, and Missouri, and there is interest from Illinois and Missouri to streamline regulations. There were several options outlined, of which three would provide system-wide flood control. Plans G, H, and M offer 500-year protection for most currently-protected urban and agricultural areas and 500-year ring levees with no new development for unprotected towns. In Plan H, the government may consider purchasing assets in areas where levee improvement costs exceed asset values and where there are willing sellers.

McMurray noted that the Illinois and Missouri Governors, UMIMRA, and the Illinois Farm Bureau have endorsed Plan M as it offers some additional protection to land and residents south of St. Louis. Senator Grassley, Senator Harkin, and Congressman

Loebsack also support the Plan. There are inter-modal concerns to be considered for economic development purposes. There was discussion about the source of legislation of the \$6 billion appropriation. A Resource Group member asked if a state match would be required for the Plan, and McMurray said that conventional processes require a 65% federal and 35% state match. During Hurricane Katrina, state matches were waived, and the request will be the same for Iowa. McMurray directed group members to a website for more information: www.UMIMRA.org.

A Task Force member said that he sees a need to fix the levee so that roads will be protected. He said there will be additional costs associated with transportation. The levee has not been repaired and the road is passable for one lane. The funding request for a variance will require the Governor's agreement. He said that establishing wetland reserves will reduce the tax base associated with agricultural lands.

Hydrologic Footprint Research

Secretary Northey said that IDALS has talked about putting more practices on the ground, as well as better understanding the impact of tile lines, cropping patterns, tillage, and cover crops on how water leaves the land. A research farm has measured different applications of chemicals and crops as they impacts water quality and water quantity.

Matt Helmers from Iowa State University gave an update on the hydrologic footprint of Iowa agriculture. The project leadership team was charged with understanding how land management practices may be impacting water flow rate and timing. Issues to explore include management practices, edge of field practices, tile drainage, how structural practices can be designed to create greater water storage capacity, how practices perform under a range of precipitation patterns including extreme events, how land management decisions impact off-site impacts, and how practices impact water quality. Helmers said this work is needed to understand how practices will perform under a range of soil and weather conditions, how practices may be combined into efficient, site-specific conservation systems, to refine and validate mathematical models that can predict practice performance and combined performance of conservation systems, and to collect field data on specific water quality impacts of land management practices.

Recent literature reviews have acknowledged the need for more data. Project components will include watershed optimization and engineering, tillage, land use and buffers, drainage impacts on runoff at the field-scale, and drainage district design impacts on water flow. Helmers highlighted locations of the components across the state. There was a question about whether urban conservation is being considered through the study. Secretary Northey said that it will not really be included in the study and clarified that there has been a funding request to work on urban conservation.

The component of watershed optimization and engineering will use hydrologic modeling tools to evaluate how watersheds can be designed or redesigned to reduce the downstream hydrologic footprint and water quality impacts of Iowa agriculture. Design elements can include wetlands, tillage practices, land use, conservation buffers,

waterways, and drainage. The tillage component will evaluate how long-term tillage practices impact runoff volumes and rates and water quality under a range of natural precipitation patterns. Plots established in 2006 where monitoring has been ongoing since 2007 will be used for this component, and research will build on existing infrastructure for cost effective generation of early results.

The land use and buffers component of the study will quantify the impact of buffers and partial conversion of crop land to perennial vegetation on surface runoff and water quality. Existing hill slope scale watersheds near the Neal Smith National Wildlife Refuge will be used to evaluate runoff and pollutant transport under varying land cover and percentage of row crop agriculture on the hill slope. Helmers showed photos of the differences in runoff between agricultural lands, buffer use with native vegetation, and restored prairie.

The component of drainage impacts on runoff at the field scale will evaluate the impact of subsurface drainage on surface runoff and water quality using small field scale areas with under-drained versus un-drained conditions. A northwest Iowa ISU farm will be used for the component. The drainage district design impacts on water flow component will assess impact of various drainage designs on the contribution of surface runoff and subsurface drainage to total flow from a drainage district and on potential for groundwater recharge in the drainage district. Approximate costs of the study include three options at different levels. Potential limitations would be that the work would not be expected to eliminate the potential for future flooding, but it will enhance understanding of how to increase the resiliency of the system. Each component will include a multi-disciplinary team and community stakeholders.

A Resource Group member asked about inclusion of a literature review, and Helmers said that there will be a literature review associated with the modeling piece. Helmers said that there is a massive amount of research on nitrate removal wetlands, and Iowa is a leader in putting out a technology through which one can see real benefit in removing nitrates. The pilot program idea takes it to the next level and allows public-private partnership. Baker said that the site-specific design in implementation will be good, and the benefit of the confidence in the modeling with the LiDAR data is that they will have greater confidence in the topographic information. LiDAR helps to get site-specific with design. A Task Force member asked about looking at rotation. Helmers said that there are some studies underway to examine crop rotation and that Iowa should go in the direction of using cover crops and crop rotation; through modeling, design of those scenarios is possible. A Resource Group member asked if the number of tiled acres in Iowa increasing. Helmers said that his perception is that there is some additional tile being put in, and some farms are replacing old tiles with new ones, with a lot of tile going in without consideration of the economic impact. Secretary Northey said that there are hillside areas that need more tiles, and Helmers said that there is a need to think about balance to consider drainage and rainfall infiltration. Halling thanked Secretary Northey for getting this study underway.

Slater said that the Task Force needs to address the information and what needs to move forward to the Commission. Mapping and other issues have already been moved forward; now, the goal is to think about issues that are 10-20 years out. He asked the group to think about these disasters, how they envisioned the long-term, and how another disaster can be avoided. Slater gave the example of landfills as an issue for discussion.

A Task Force member raised the issue of building in the floodplains and said there is a need to define floodplains in additional ways (i.e. not just 100-year floodplain) since there will be more rain and more flooding in the future. A Task Force member said there is a need to emphasize that building in floodplains is not okay. Another Task Force member talked about this being an opportunity to change the landscape of Iowa and said that watershed management cannot be achieved without looking at the floodplain and water management issue as connected issues. There was discussion of the feasibility of planning for flood events and zoning issues.

Another Task Force member said that the role of the government and private insurance should be clearer and asked for what level the government is expected to provide a safety net to those who willingly or knowingly bypass flood insurance. There was a discussion about the personal responsibility of the individual.

Another Task Force member said that in a best case scenario, everyone would communicate at all levels and funding would go where it needs to go. Slater said that conversation not only involves agriculture but also human lives, the economy, and other issues. A Task Force member said that there are a lot of resources that are underutilized and gave the example of Iowa State Extension offices that provide the system that is needed to plan for future disasters. Secretary Northey said that agencies are talking back and forth, on how to get money out there and how to make sure it is used for the purposes intended. Riley said that the magnitude of this event is enormous and said that he thought the state as a whole has done a very good job, when looking at the FEMA model and how it is operated. Secretary Northey said that each disaster is different, and the state plans for the last one and not the next one.

Slater said that there is a need to build and put an infrastructure in place. Case management has come up repeatedly. One Task Force member said that last year, a water conservation infrastructure was put in place but nothing has been done about it. Slater said for Jumpstart, state government made it convenient by not adding any requirements, but the local governments have their own laws and rules, and those kinds of things have to be addressed ahead of time. A Task Force member talked about the Water Resource Coordinating Council and using existing groups such as the Council to address these issues. Slater said that there needs to be a specific approach that moves on the issues, and the Commission will provide a systemic look at the issues. A Task Force member said that water quality and soil conservation issues should be high priorities, since they are so important to agriculture. He said that the Coordinating Council will be looking at this and the watershed approach systematically, and the results of the Coordinating Council will be improved soil nutrient.

There was discussion about the Farm Bill and infrastructure needs. Slater asked the group what they recommend to do in the next one, five, and ten year(s). A Resource Group member said that there is a need to have the readiness to respond, including considerations for drought and climate change. There was discussion about the need to have state of the art floodplain mapping so that there are no surprises. One member suggested that the risk needs to be proportional to the investment. A Resource Group member said that case management will be a crucial piece of recovery and said that the process of going forward should be through education and incentivization, rather than control and punishment.

A Task Force member said that there is a need to increase rainfall infiltration; 75% of land in Iowa is agriculture based, and a change in the landscape from native prairie has decreased water infiltration. He said that changing management practices will lead to positive changes in infiltration. A Resource Group member said that he would like to see a comprehensive plan that is based on a regional basis, in addition to the need for decision-makers to follow through on the recommendations, such as not allowing construction within floodplains. There was discussion of the changing landscape, climate change, levee use, and the need to look at systems holistically. A Task Force member said that her vision of Iowa is a state that puts community first, values and supports healthy environments, and where systems, including conservation practices, are put in place to reduce risks in extreme weather conditions. She said she would like to see green space prominent in the landscape to provide multiple benefits and would like to see people living comfortable lives without fear of natural disasters with the ability to make a living off rich soils and clean water.

A Task Force member said that more food can be produced if land is not taken out of production earlier. A Resource Group member said that he would like to see use of perennials and rotation-based pasture systems, and said he sees a lot of water quality benefits to result from these measures. Another Task Force member said that he would like to add the issue of levees.

Halling said that the role of Task Force is to deal with these particular disasters and how these things can be mitigated in the future. He noted the need to consult with the Legislature to find the funding for recovery and promotion of good practices. Halling said that decisions can be made based on economic considerations, and there is a need to come together, both urban and rural entities, to address issues together.

Slater said there is a need to take a creative approach to add value to the Commission's work. Secretary Northey said that conversation is important. Slater said there is a need to integrate practices in urban and rural settings. Secretary Northey said that five urban conservation programs were put up last year. Slater said that there is a lot of interest and need to develop an integrated, engaged approach to address some of these issues.

A Task Force member said that as a short-term goal, flooding is a watershed issue that may be addressed by the Iowa Watershed Improvement Review Board (WIRB). There

was discussion of water quality and water quantity and legislation that addresses each issue. A member suggested relaxation of the rules to allow decisions to be made during times of disaster. There was discussion of what would trigger this relaxation of rules (i.e. Presidential Declaration).

A Task Force member said that there is a fear of making a mistake because of the lack of data. There was discussion of the opportunities to make changes in the landscape and promote soil conservation through the disaster.

Slater said that the notes will be forwarded to the Commission and available on the RIO website. He noted the strong participation of the Commission to carry issues forward and also noted the participation of legislators in the process.

Arlinda McKeen said that the directive of the Commission is to not just put things back the way they were. The Commission will be addressing issues at their meetings on November 6 and 7. From the Task Forces, SPPG will be putting together a report provided to the Commission that will give them the information about the issues discussed in all the Task Force meetings.

Halling thanked group members for their participation and their help in addressing recovery issues. He said that he saw this as an opportunity to talk to the proper agencies and people in the state to bring issues forward for discussion. Halling noted that he will bring issues and frustrations forward to the Commission and encouraged group members to contact him. He said he saw recommendations moving forward from the Commission to the Legislature for further consideration. He adjourned the meeting.